

## INTRODUCTION

Cap-Clip™ Acid Pyrophosphatase was developed as an improvement over Tobacco Acid Pyrophosphatase (TAP). Cap-Clip Acid Pyrophosphatase can be used unit for unit in any previously developed protocol that utilized TAP. The Reactions Buffers for the two enzymes are identical.

Cap-Clip Acid Pyrophosphatase is a plant-derived enzyme that hydrolyzes various pyrophosphate bonds, including the pyrophosphate bonds of the 5'-terminal m<sup>7</sup>GpppG "cap" of eukaryotic messenger RNAs, as well as 5' cap structures on many small nuclear RNAs (snRNAs), heterogeneous nuclear RNAs and some viral RNAs. Complete hydrolysis of such capped RNAs generates RNA that has a 5'-monophosphate group.

With lot to lot consistency, absence of critical contaminants and a dependable inventory, Cap-Clip Acid Pyrophosphatase replaces all TAP needs.

## MATERIALS

### Materials Supplied

**Important** Store at –20°C in a freezer without a defrost cycle. Do not store at –70°C.

| Cap-Clip™ Acid Pyrophosphatase (100 units)  |        |
|---|--------|
| Component   | Volume |
| Cap-Clip™ Acid Pyrophosphatase, 5 U/μl<br>in 50% glycerol, 10 mM Tris-HCl, pH 7.5, 100 mM NaCl, 1 mM dithiothreitol, 0.1 mM EDTA and 0.01% Triton® X-100. | 20 μl  |
| 10X Cap-Clip™ Acid Pyrophosphatase Reaction Buffer<br>0.5 M NaOAc, pH 6.0, 10 mM EDTA, 1% β-mercaptoethanol and 0.1% Triton X-100.                        | 250 μl |



## SPECIFICATIONS

### Unit Definition

One unit of Cap-Clip Acid Pyrophosphatase releases one nanomole of inorganic phosphate from m<sup>7</sup>GpppG in 30 minutes at 37°C under standard assay conditions.

### Contaminating Activity Assays

Cap-Clip Acid Pyrophosphatase is free of detectable RNase, DNase and phosphatase activities.



For more information, consult the appropriate safety data sheet (SDS) at [www.cellscript.com/products.html](http://www.cellscript.com/products.html)

The performance of this product is guaranteed for one year from the date of purchase.

Triton is a registered trademark of Rohm & Haas, Philadelphia, Pennsylvania.

A-Plus, Cap-Clip, CELLSRIPT, INCOGNITO, MessageMAX, mScript, ScriptCap, ScriptGuard, SP6-Scribe, T7-FlashScribe and T7-Scribe are trademarks of CELLSRIPT, Madison, Wisconsin.

The Purchaser of this product agrees to the TERMS AND CONDITIONS posted on CELLSRIPT's website: <http://www.cellscript.com>.

© 2024 CELLSRIPT, All rights reserved.